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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,045

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Johan Ulin

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EXAMINER

WHITE, DENNIS MICHAEL

ART UNIT

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1797

MAIL DATE

DELIVERY MODE

10/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,045	<b>Applicant(s)</b> ULIN ET AL.	
	<b>Examiner</b> DENNIS M. WHITE	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/15/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/15/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Preliminary amendment filed 6/15/2005 is noted. Claims 1-14 are cancelled.  
Claims 15-28 are new. Currently claims 15-28 are pending.

### ***Claim Rejections - 35 USC § 101/112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 27-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 27-28, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 27-28 provides for the use of "a micro vial assembly" or "of a system", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 27-28 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

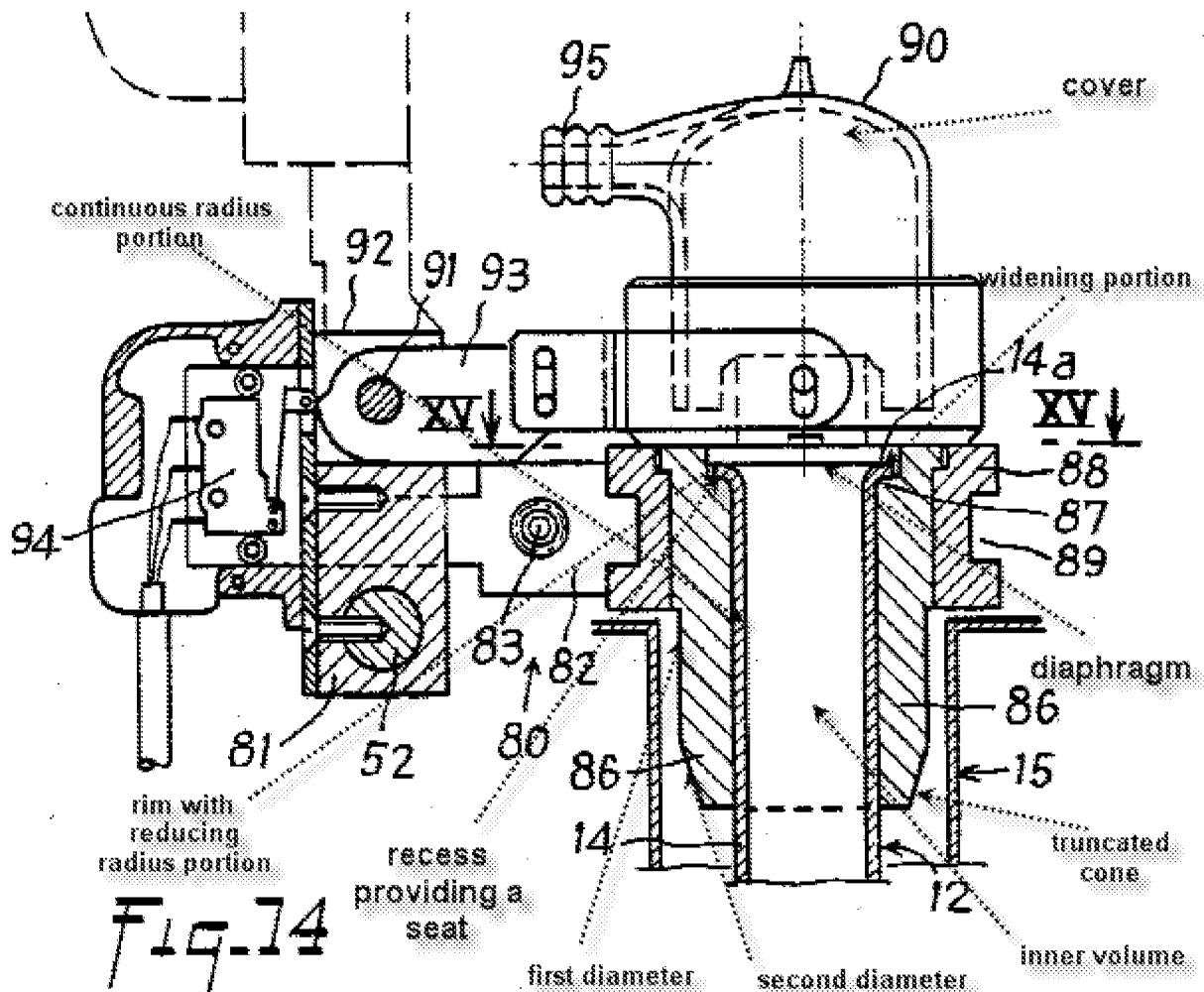
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 15-18, 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by anticipated by Commarmot et al (USP 4,693,867).

Regarding claims 15, 27-28, Commarmot et al teach a container 12 (“micro vial”) assembly for performing microwave-assisted chemical reactions, the assemble comprising: a container 12 made of glass (“a micro-wave transparent reaction vessel having an open upper end and a closed bottom end”); a cover 90 (“cap”) having a tube 95 (“through hole”), and a sealing diaphragm, wherein two half-shells 86 (“a sleeve”) is formed with a through hole, the container 12 (“vessel”) extending axially through the two half-shells 86 (“sleeve”) and the cover 90 (“cap”) securing the vessel to the sleeve while clamping, the diaphragm for sealing the open upper end of the vessel, the open upper end of the vessel being formed with a widening portion, the widening portion

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being received in a corresponding recess formed in an end plane of the sleeve, the recess providing a seat for the widening portion in the open upper end of the vessel (see Fig. 14 below). The container is fully capable of containing small volumes.



Regarding claim 16, Commarmot et al teach the upper end of the two half-shells 86 ("a sleeve") is formed circumferentially for engagement with the cap, the sleeve having a first diameter portion running from the upper end to meet a reduced diameter portion in the lower end of the sleeve (see Fig. 14 above).

Regarding claim 17, Commarmot et al teach the portion of reduced diameter in the lower end of the sleeve is a truncated cone.

Regarding claim 18, Commarmot et al teach the widening portion of the vessel and the seat in the end plane of the sleeve are both conical in shape.

Regarding claim 19, Commarmot et al teach the open end of the vessel is defined by a rim protruding above where the shoulder and flange of the half shells begin ("upper end of the sleeve" is defined in applicant's specification in Para 0025 as where the first diameter begins, which is also where the seat 24 and flange 25 begin), when the vessel is supported in the sleeve, the rim being dimensioned to be depressed in the lower side of the diaphragm.

Regarding claims 20-21, Commarmot et al the container has a rim that extends to the diaphragm, sealing the open end of the vessel wherein a reducing radius portion smoothly transforming into a portion of continuous radius defining a reaction chamber of the verse cavity. Commarmot further shows container 12 wherein the upper rim extends transversely (see Fig. 8 below).

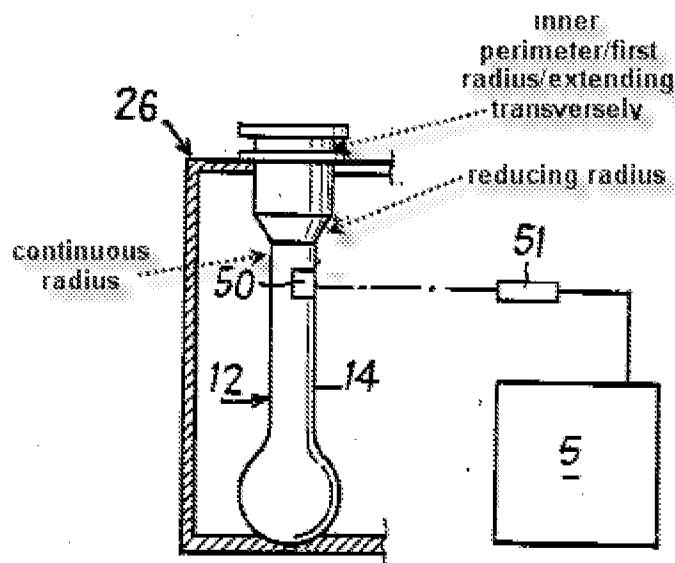


Fig. 8

Regarding claims 23-25, Commarmot et al teach the vessel has an inner volume. The inner volume is fully capable of including a head-space volume which is less than 20 times that of the smallest reaction mixture volume contained in the vessel, for performing microwave-assisted chemical reactions on small volumes of 500 .mu.l or less, and for performing microwave assisted chemical reactions on small reaction mixture volumes

Regarding claim 26, Commarmot et al teach the outer perimeter of the sleeve is dimensioned for bridging the radial distance between a wall of the vessel and an entrance diameter, of a microwave cavity in the system.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Commarmot et al (USP 4,693,867) in view of Bennett et al (USP 5,520,886).

Commarmot et al teach the limitations of claim 15 as per above.



Regarding claim 22, Commarmot et al teach the bottom of the container 12 can be generally semi-spherical in form or have a flat bottom if the container is of the ordinary tubular type or in the form of a bulb in the case of a flask. Commarmot is silent about the bottom located above the terminal end of the vessel.

Bennett et al teach sealable container assemblies include containers for materials which are to be microwave heated. The bottom of the reaction vessel is formed above the terminal end of skirt 31. It is desirable to form the bottom above the terminal end of the container to provide a skirt that avoids dangerous explosions by allows for a more gradual failure of the container. The skirt also allows the container to stand upright on its own when the bottom is rounded.

Therefore it would have been obvious to one of ordinary skill in the art as motivated by Bennett et al to form the bottom of the reaction vessel of Commarmot et al above the terminal end of the skirt as in Bennett et al because the skirt facilitates distortion downwardly of the container bottom and thereby promotes a more gradual failure of the container and slower release of contents during high pressures (col. 3 lines 40-47).

For Claim 22, it is noted that this claim contains product-by-process language. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process, consult *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case the bottom of the reaction vessel of Commarmot/Bennett seems similar to those instantly claimed.

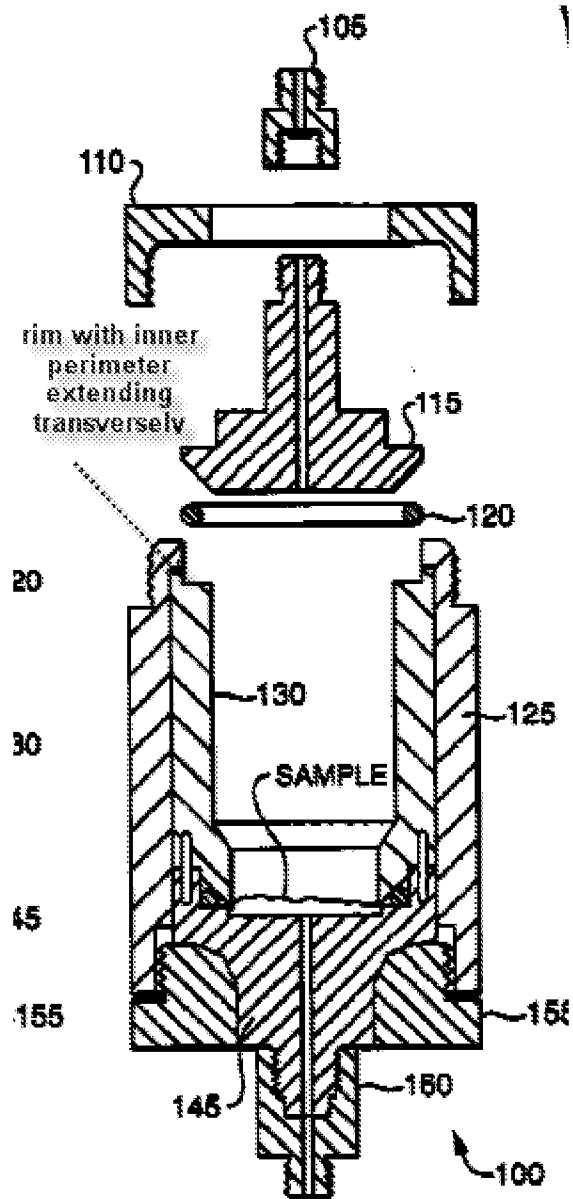
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Therefore, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product, consult *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manganini et al teach a reactor vessel used for microwave heating in which a interior liner 130 ("microwave reaction vessel") has a rim portion that extends transversely to the top cover o-ring 120 and top cover 115 ("sealing diaphragm").



**FIG. 1B**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS M. WHITE whose telephone number is

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(571)270-3747. The examiner can normally be reached on Monday-Thursday, EST 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/  
Primary Examiner, Art Unit 1797

dmw